

## RESONANT OSCILLATING SCANNING DEVICE WITH MULTIPLE LIGHT SOURCES

### ABSTRACT

An optical scanning system including a resonant oscillating device having a first magnetic field and a mirrored surface. The system includes first and second light sources for directing first and second beams of light to the mirrored surface of the resonant oscillating device to provide first and second reflected scan beams. The  
5 second reflected scan beam is offset a first distance from the first reflected scan beam. A second magnetic field is included for interacting with the first magnetic field to provide torque to the resonant oscillating device for scanning the first and second reflected scan beams across a surface to provide first and second scan lines on the surface substantially simultaneously as the resonant oscillating device oscillates under  
10 the influence of the first and second magnetic fields. The optical scanning system is effective to increase scan efficiency of the resonant oscillating device over that of a system using a single light source.

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